INDEX TO ECOLOGY, VOLUME 69, 1988

AUTHOR INDEX

A

Abrams, P. A., 1418 Adis, J., 287 Ågren, J., 962 Anderson, S. H., 1952 Andren, H., 544 Angelstam, P., 544 Aplet, G. H., 312 Armbruster, W. S., 1746 Atsatt, P. R., 17

В

Bach, C., 1090, 1103 Bain, M. B., 382 Baldocchi, D. D., 1331 Baldwin, I. T., 267 Bao, Y., 1578 Barbosa, P., 912 Barrett, G. W., 984 Bazzaz, F. A., 937 Bednarz, J. C., 1176 Benkman, C. W., 1195 Benner, R., 1525 Ben-Shahar, R., 1479 Bergelson, J. M., 434 Berger, J., 177 Bergstrom, B. J., 393 Bernays, E. A., 886, 1153 Bertness, M. D., 703 Bigwood, D. W., 497 Billings, W., 303 Bird, G., 544 Black, H. L., 532 Bleiler, J. A., 427 Bliss, L. C., 484 Blondel, J., 1899 Bollinger, E. K., 96 Bonan, G. B., 1721 Booke, H. E., 382 Boone, R. D., 714 Boonstra, R., 1290 Borgegard, S., 916 Bourne, H. C., 590 Bowerman, J. E., 418 Bridges, K., 723 Brittingham, M. C., 581 Bronstein, J. L., 207, 1298 Brower, L. P., 458 Brown, C. R., 602 Brown, J. H., 1923 Buchsbaum, R., 261 Burke, M. K., 1286 Bush, B. B., 1466 Buss, L. W., 646 Buttemer, W., 2004

C

Caldwell, M. M., 870 Canham, C. D., 786, 1634 Capinera, J. L., 823

Carleton, T. J., 1044 Carnes, B. A., 1266 Carney, H. J., 664 Carroll, G., 2 Carson, W. P., 984 Case, T. J., 1993 Casey, T. M., 2004 Chapin, F. S., III, 693 Chapman, P. L., 823 Chessel, D., 1899 Clark, K., 751 Clay, K., 10 Codin-Blumer, G., 1393 Coffin, D. P., 1609 Cohen, J., 1655 Coleman, D. C., 1009 Compton, S. G., 1302 Cooper, S. D., 868 Costantino, R. F., 1200 Cotto-Navarro, Z., 1434 Courtney, S., 910 Craig, T. P., 2021 Craine, I. T., 1290 Cromack, Jr., K., 714 Crome, F. H., 1960 Crossley, D. A., Jr., 1118 Cunningham, C., 177

D

Dahm, C. N., 1326 Davidson, D., 801, 1138 Davis, F. W., 537 Day, R. T., 1044 De Morais, J. W., 287 DeLucia, E. H., 303 DeMott, W. R., 1806 Dennis, B., 1200 Detling, J. K., 1599 Devlin, B., 1716 Dezzeo, N., 751 Dial, K. P., 1620 Dickman, C. R., 569 Dinerstein, E., 1768 Doehlert, S. M., 104 Downing, J. A., 1393 DuBowy, P. J., 1439 Dunham, A. E., 167

E

Eastmond, D., 532 Edgemon, M. A., 1410 Ehrlich, P., 908 Eisenberg, R. M., 193 Eissenstat, D. M., 870 Elliott, E., 1009 Elliott, L. F., 1466 Eriksson, O., 736 Evans, F. C., 1517 Everett, K. R., 693

F

Fahrig, L., 468
Fetcher, N., 693
Finn, J. T., 382
Fitzgerald, T., 2004
Fowler, N. L., 947
Fox, L. R., 906
Franco, A. C., 1731
Frank, C. L., 1943
Franklin, J. F., 1689
Freed, L. A., 1624
Frelich, L. E., 778
Fritz, R. S., 845
Frochot, B., 1899
Frost, I., 66
Futyma, R. P., 928

(

Gale, N., 537 Gallagher, J. L., 1005 Garbutt, K., 937 Gavin, T. A., 96 Gerrish, G., 723 Gilbert, J. J., 1826 Gill, F. B., 1933 Goldberg, D. E., 1677 Goldman, C. R., 664 Goldsborough, W. J., 1775 Gomes Rodrigues, J. M., 287 Gorchov, D. L., 1545 Gorman, O. T., 1239 Gosz, J. R., 1326 Gotelli, N. J., 157, 624 Graham, M., 886 Grant, B. W., 167 Grant, D. M., 1005 Green, D. G., 370 Grime, J. P., 1618 Grimm, N. B., 1884 Grosberg, R., 1855 Gross, K. L., 1677 Gross, P., 1506 Grover, J. P., 408 Grue, C. E., 590 Grulke, N. E., 484 Guyer, C., 350, 362

H

Hall, D. J., 1352 Halpern, C. B., 1703 Hanley, T. A., 1166 Harriss, R. C., 1318 Harvell, C. D., 1855 Harvey, L. E., 537 Hastings, A., 1665 Hawryluk, M. D., 146 Hepp, G. R., 590 Herrera, C. M., 233 Hershey, A. E., 1383 Hewett, S. W., 135 Hicks, B. B., 1331

INDEX TO ECOLOGY, VOLUME 69, 1988

AUTHOR INDEX

A

Abrams, P. A., 1418 Adis, J., 287 Ågren, J., 962 Anderson, S. H., 1952 Andren, H., 544 Angelstam, P., 544 Aplet, G. H., 312 Armbruster, W. S., 1746 Atsatt, P. R., 17

В

Bach, C., 1090, 1103 Bain, M. B., 382 Baldocchi, D. D., 1331 Baldwin, I. T., 267 Bao, Y., 1578 Barbosa, P., 912 Barrett, G. W., 984 Bazzaz, F. A., 937 Bednarz, J. C., 1176 Benkman, C. W., 1195 Benner, R., 1525 Ben-Shahar, R., 1479 Bergelson, J. M., 434 Berger, J., 177 Bergstrom, B. J., 393 Bernays, E. A., 886, 1153 Bertness, M. D., 703 Bigwood, D. W., 497 Billings, W., 303 Bird, G., 544 Black, H. L., 532 Bleiler, J. A., 427 Bliss, L. C., 484 Blondel, J., 1899 Bollinger, E. K., 96 Bonan, G. B., 1721 Booke, H. E., 382 Boone, R. D., 714 Boonstra, R., 1290 Borgegard, S., 916 Bourne, H. C., 590 Bowerman, J. E., 418 Bridges, K., 723 Brittingham, M. C., 581 Bronstein, J. L., 207, 1298 Brower, L. P., 458 Brown, C. R., 602 Brown, J. H., 1923 Buchsbaum, R., 261 Burke, M. K., 1286 Bush, B. B., 1466 Buss, L. W., 646 Buttemer, W., 2004

C

Caldwell, M. M., 870 Canham, C. D., 786, 1634 Capinera, J. L., 823

Carleton, T. J., 1044 Carnes, B. A., 1266 Carney, H. J., 664 Carroll, G., 2 Carson, W. P., 984 Case, T. J., 1993 Casey, T. M., 2004 Chapin, F. S., III, 693 Chapman, P. L., 823 Chessel, D., 1899 Clark, K., 751 Clay, K., 10 Codin-Blumer, G., 1393 Coffin, D. P., 1609 Cohen, J., 1655 Coleman, D. C., 1009 Compton, S. G., 1302 Cooper, S. D., 868 Costantino, R. F., 1200 Cotto-Navarro, Z., 1434 Courtney, S., 910 Craig, T. P., 2021 Craine, I. T., 1290 Cromack, Jr., K., 714 Crome, F. H., 1960 Crossley, D. A., Jr., 1118 Cunningham, C., 177

D

Dahm, C. N., 1326 Davidson, D., 801, 1138 Davis, F. W., 537 Day, R. T., 1044 De Morais, J. W., 287 DeLucia, E. H., 303 DeMott, W. R., 1806 Dennis, B., 1200 Detling, J. K., 1599 Devlin, B., 1716 Dezzeo, N., 751 Dial, K. P., 1620 Dickman, C. R., 569 Dinerstein, E., 1768 Doehlert, S. M., 104 Downing, J. A., 1393 DuBowy, P. J., 1439 Dunham, A. E., 167

E

Eastmond, D., 532 Edgemon, M. A., 1410 Ehrlich, P., 908 Eisenberg, R. M., 193 Eissenstat, D. M., 870 Elliott, E., 1009 Elliott, L. F., 1466 Eriksson, O., 736 Evans, F. C., 1517 Everett, K. R., 693

F

Fahrig, L., 468
Fetcher, N., 693
Finn, J. T., 382
Fitzgerald, T., 2004
Fowler, N. L., 947
Fox, L. R., 906
Franco, A. C., 1731
Frank, C. L., 1943
Franklin, J. F., 1689
Freed, L. A., 1624
Frelich, L. E., 778
Fritz, R. S., 845
Frochot, B., 1899
Frost, I., 66
Futyma, R. P., 928

(

Gale, N., 537 Gallagher, J. L., 1005 Garbutt, K., 937 Gavin, T. A., 96 Gerrish, G., 723 Gilbert, J. J., 1826 Gill, F. B., 1933 Goldberg, D. E., 1677 Goldman, C. R., 664 Goldsborough, W. J., 1775 Gomes Rodrigues, J. M., 287 Gorchov, D. L., 1545 Gorman, O. T., 1239 Gosz, J. R., 1326 Gotelli, N. J., 157, 624 Graham, M., 886 Grant, B. W., 167 Grant, D. M., 1005 Green, D. G., 370 Grime, J. P., 1618 Grimm, N. B., 1884 Grosberg, R., 1855 Gross, K. L., 1677 Gross, P., 1506 Grover, J. P., 408 Grue, C. E., 590 Grulke, N. E., 484 Guyer, C., 350, 362

H

Hall, D. J., 1352 Halpern, C. B., 1703 Hanley, T. A., 1166 Harriss, R. C., 1318 Harvell, C. D., 1855 Harvey, L. E., 537 Hastings, A., 1665 Hawryluk, M. D., 146 Hepp, G. R., 590 Herrera, C. M., 233 Hershey, A. E., 1383 Hewett, S. W., 135 Hicks, B. B., 1331 Hiltner, A. L., 1383
Hines, J. E., 590
Hodson, R. E., 1525
Hogg, E. H., 1025
Holben, W. E., 561
Holbrook, S. J., 125
Hoppes, W. G., 320
Horton, D. R., 823
Horvitz, C. C., 200, 1128, 1741
Howard, J. J., 250
Hsia, M. S., 814
Hughes, C. R., 1497
Hulbert, L. C., 46
Hullar, M. A., 1383
Hunt, H., 1009
Huston, M. A., 1517

I

Ingham, E. R., 1009 Inouye, D. W., 497 Inouye, R. S., 995 Itami, J. K., 2021

J

Jackson, S. T., 928 James, S. W., 476 Janzen, D. H., 427, 905, 1153 Jaramillo, V. J., 1599 Jermy, T., 902 Johnson, E. A., 1401 Jones, W. T., 1466, 1474 Joos, B., 2004 Joyce, L. A., 40 Juliano, S. A., 1294, 1983

K

Karlson, R. H., 1219 Kats, L. B., 1865 Keddy, P. A., 1044 Kemp, W. M., 1775 Kenkel, N., 1017 Kerfoot, W. C., 1806 Ketcham, R. B., 193 Kielland, K., 693 Kitching, R. L., 1669 Kneib, R. T., 1795 Knight, R. L., 1188 Knisley, C. B., 1983 Koptur, S., 278

L

Lacey, E. P., 220 Lajtha, K., 24 Lau, R. R., 215 Lauenroth, W. K., 40, 1609 Laven, R. D., 312 Lawler, S. P., 1401 Lawton, J. H., 278, 434 Lawton, R. O., 764 LeBlanc, D. C., 1286 Legovic, T., 1525 Levey, D. J., 1076 Levitan, C., 1806 Levitan, D. R., 193 Levy, C. K., 796 Lewis, W. M., Jr., 679 Lifjeld, J. T., 1918 Ligon, J. D., 1176

Lindroth, R. L., 814 Link, N. E., 1466 Linkins, A. E., 693 Lively, C. M., 1233 Lock, M. A., 1383

Lock, M. A., 1383 Loehle, C., 284 Longino, J., 801 Lorimer, C., 778 Lovett Doust, J., 741 Lovett Doust, L., 741

M

Mac Nally, R. C., 1974 Mahnert, V., 287 Malcolm, S. B., 458 Maquirino, P., 751 Marquis, R. J., 1552 Martin, T. E., 74 Marzluff, J. M., 1620 Masters, A. R., 458 Matson, P. A., 1318 Matthews, W. J., 1894 Maurer, B. A., 1923 McIvor, C. C., 1341 McKenna, M. A., 1306 McMahon, T. E., 1871 McNeill, J., 1044 Menkens, G. E., Jr., 1952 Meyers, T. P., 1331 Miller, M., 1383 Mittelbach, G. G., 614 Mizutani, H., 340 Moloney, K. A., 1588 Moran, M. A., 1525 Moran, N. A., 1214 Morin, P. J., 1401 Morrison, D. E., 1367 Morse, D. H., 1970 Mueller-Dombois, D., 723 Murphy, D. D., 908, 1486

N

Newman, C. M., 1655 Nichols, J. D., 590 Nilsen, E. T., 1578 Nobel, P. S., 1731 Nordheim, E. V., 778

0

Odum, W. E., 1341 Orlóci, L., 1260 Orlóci, M., 1260 Owen, J. G., 1161

P

Paine, R. T., 1648, 1787 Palmer, M. A., 1251 Paloheimo, J., 468 Palumbi, S. R., 1624 Parton, W., 40 Payette, S., 516 Payne, L. L., 104 Payne, R. B., 104 Pechmann, J. H., 184 Perry, D. M., 1064 Peters, R., 1673 Peterson, B. J., 1383 Petranka, J. W., 1865 Pierce, L., 1762 Pimm, S. L., 1669 Pinel-Alloul, B., 1393 Porter, K. G., 558 Posey, M. H., 974 Power, M. E., 1894 Preszler, R. W., 2012 Price, P. W., 845, 1506, 2012, 2021 Primack, R. B., 796 Pulliam, H. R., 1195 Putz, F. E., 764 Pérusse, M., 1393

Q

Queller, D. C., 1497

R

Raimondi, P. T., 400 Rathcke, B. J., 446, 728 Rausher, M. D., 898 Real, L. A., 728 Reid, C., 1009 Reid, W. V., 1454 Richards, G. C., 1960 Richards, R. C., 664 Richerson, P. J., 664 Rietsma, C. S., 261 Risley, L. S., 1118 Risser, P. G., 1326 Rissing, S. W., 809 Robbins, C. T., 1166 Robertson, D. R., 370 Robertson, G. P., 1517 Robertson, H. G., 1302 Robinson, J. V., 1410 Rollo, C. D., 146 Root, T., 330 Rosenthal, G. A., 427 Rossiter, M., 267 Rundle, S., 1383 Running, S. W., 1762 Rydin, H., 916 Ryti, R. T., 1993

S

Sacchi, C. F., 2021 Sakai, A. K., 2031 Sala, O. E., 40 Sarnelle, O., 868 Schemske, D. W., 200, 1128, 1741 Schlesinger, W. H., 24, 303 Schmitt, R. J., 125 Schneider, R. L., 1055 Schultz, J. C., 267, 896 Scott., D. E., 184 Scriber, J. M., 814 Searcy, W. A., 85 Seastedt, T. R., 59 Seliskar, D. M., 1005 Semlitsch, R. D., 184 Sharik, T. L., 2031 Sharitz, R. R., 1055 Shenk, M. A., 193 Sholes, O. D., 543 Sih, A., 1865 Skagen, S. K., 1188 Skinner, J., 1479 Slade, N. A., 393, 1266

Slagsvold, T., 1918 Slauson, W. L., 15. 6 Smith, D. W., 868 Smith, F. W., 312 Snelling, R. R., 801 Sollins, P., 714 Somers, G. F., 1005 Spalinger, D., 1166 Spies, T. A., 1689 Sprules, W. G., 418 Stewart, A. J., 1894 Strassmann, J. E., 1497 Strauss, S. Y., 1628 Stromborg, K. L., 590 Sullivan, K. A., 118

Tash, J. C., 1871 Temple, S. A., 581 Thomas, T. B., 1689 Thompson, J. N., 893 Thomson, J. D., 1306 Tiedje, J. M., 561, 1517 Tilman, D., 995 Titus, K., 1275

U

Uhl, C., 751

V

Valiela, I., 261 Van Alstyne, K., 655 Van Buskirk, J., 857 Vestal, J. R., 1383 Victor, B. C., 370

W

Wada, E., 340 Wainwright, P. C., 635 Ward, R. T., 1566 Warren, S. D., 532 Waser, P. M., 1466 Wein, R. W., 1025 Weiss, S. B., 1486 Welden, C. W., 1566 Wemmer, C. M., 1768 Werner, E. E., 1352 West, L., 1839 Whaley, W. H., 532 White, C. S., 1631 White, R. R., 1486 Whitham, T. G., 1214 Wilcox, D. A., 928 Williams, B. K., 1275 Winkler, M. G., 1032 Winn, A. A., 1537 Wunderle, J. M., Jr., 1434

Yodzis, P., 508 Young, C. M., 624 Young, D. R., 215 Young, H. J., 832 Yund, P. O., 646

KEY WORD INDEX

A

Abies lasiocarpa, 312 aboveground biomass, 46 aboveground growth, 786 abundance patterns, 330 Abutilon theophrasti, 937 Acalymma, 1090, 1103 acclimation, 1775 Acer saccharum, 786 acetylene, 1631 activity, 167 adaptation, 287 African ungulates, 1479 Agaonidae, 1302 Agave deserti, 1731 age structure, 312 age-specific selection, 220 aggregation, 1393 aggression, 85 agonistic behavior, 1624 Agropyron, 870 Alaska, 1383 alates, 1993 Alcyonidium, 646 algae, 1367 algivorous minnows, 1894 allelochemicals, 814 allelopathy, 801 allogenic succession, 516 Allomerus demararae, 801 allometry, 393, 1153 altered andesite, 303 Amaranthus retroflexus, 937 Amazon, 287, 1318 Amazon Basin, 751 Amazon rain forest, 66 Ambrosia artemisiifolia, 937 Ambrosia spp., 809 Ambystoma talpoideum, 184 Amelanchier arborea, 1545 ammonia volatilization, 340 ammonium oxidation, 1631 amphibian, 184 amphibian ecology, 1865 Anas spp., 1439 Anax junius, 857 Anañgucocha, 66 animal burrows, 1609 annuals, 937 anole, 350, 362 ant competition, 1138 ant garden, 1138 ant mounds, 1609 ant-plant interactions, 801, 1138 antagonism, 1298 Antechinus, 569 antguards, 200, 1128 antiherbivore defenses, 250, 278 antipredator behavior, 177 antipredator defenses, 1865 ants, 278, 434, 801, 1302, 1993 Anura, 857 anurans, 1401 aphid, 1214 Aporrectodea, 476 Appalachian mountains, 1578

aquatic communities, 1410 aquatic macrophytes, 928 aquatics, 1044 arctic, 1383 area, 74 arginase, 427 arid-land ecology, 1566 Aristida longiseta, 947 Arizona, 74, 845, 1983, 2021 arroyo willow, 2012 Artemisia, 870 Artemisia tridentata, 303 Ascidia, 1855 assemblage, 1239 association, 1239 asymmetries, 1188 Atta cephalotes, 250 autogenic succession, 516 autotrophic, 1383 avian behavior, 96 avian energetics, 330 avian frugivory, 233, 320

В

Balanus, 624 Bald Eagle, 1188 barnacles, 400, 1064 bats, 1960 beam radiation, 1634 Beer-Lambert Law, 1762 bees, 446, 1746 beetle pollination, 832 behavior, 655, 2004 behavioral ecology, 104 benthic disturbance, 1251 benthic macroinvertebrates, 1341 benthos, 614, 974, 1795 bigtooth aspen, 2031 biochemical ecology, 427 biogeochemistry, 24 biogeographic patterns, 330 biological time, 393 biomass, 1923 biomass allocation, 962 biophysical ecology, 167 biotechnology, 558 birch, 434 bird songs, 104 birds, 434, 1620, 1923 Black-capped Chickadee, 581 black-tailed deer, 1166 bluestem prairie, 46 body masses, 581 body size, 146, 177, 184, 569, 1393, 1620, 1923 body temperature, 2004 bog formation, 1032 boreal, 1017 boring, 1064 Bouteloua gracilis, 1599, 1609 Bouteloua rigidiseta, 947 branching patterns, 786 Brasenia, 1032 Brazil, 287 breeding density, 85

breeding success, 104, 1454 brown alga, 1787 browsing, 1628 Bruchidaeidae, 427 Bryozoa, 1855 bryozoan, 646 Bufo woodhousei, 1401 buoyancy, 1025 burning, 46 butterfly, 1486 buttress height, 532 buttress length, 532 buttress volume, 532

coadaptation, 1138

coarse woody debris, 1689

Coereba flaveola, 1434

cabbage butterfly, 468 caging experiments, 1795 Calathea, 200, 1128 Calathea ovandensis, 1741 calibration curve, 1286 California, 1439 canonical analysis, 1260 canonical variates, 1275 canopy gaps, 778, 786, 1634 canopy transmittance, 1762 CAPTURE population size estimation program, 1952 capture success, 135 carbon isotope ratio, 303, 340 Cardueliniae, 1195 Caribbean, 370, 1367 Caribbean fishes, 635 carnivores, 1161 carnivorous snails, 1839 cell and molecular biology, 558 cellular slime mold, 193 Central Grassland region, 40 character displacement, 1974 charcoal, 1032 chemical defenses, 655, 1865 chemical detection of predators, 1865 chemical ecology, 814 chironomid tubes, 1383 chlorophyll, 1578 chlorophyll a, 1383 chronosequence, 24, 928 Chrysomelidae, 1294 Chthamalus anisopoma, 400 cicadas, 1974 Cicindela, 1983 Cicindelidae, 1983 cladocerans, 868, 1393 classification, 1044, 1275 clearcut logging, 1703 Clibanarius, 1233 Cliff Swallow, 602 climate, 516 clipping, 1599 clonal, 741 clonal growth, 215, 2031 clonal organisms, 1855 clonal plants, 736 clones, 1219 cloud forest, 764 clutch size, 1918, 1970 Cnidaria, 157 CO₂, 937, 1318 CO₂ uptake, 1731

coevolution, 886, 893, 898, 906, 910, 1298 coexistence, 1418, 1974 Coleoptera, 278 collector-gatherers, 1884 collinearity, 1266 colonial fission, 1219 coloniality, 602 colonization, 320, 1410 Colorado, 312, 1566 common garden, 1005 community, 508, 624, 995, 1960 community assembly, 1410 community composition, 974 community dynamics, 1795, 1899 community ecology, 382, 408, 561, 1239 community structure, 569, 845, 857, 1367, 1439, 1566, 1624, comparative biology, 1746 compensatory growth, 1219 competition, 193, 303, 408, 446, 614, 868, 937, 947, 1044, 1266, 1401, 1418, 1566, 1731, 1826, 1899, 1960, 1993 competitive ability, 870 complex life cycles, 1214 component regression analysis, 1746 computer simulation, 1952 conditional strategies, 1855 conductance, 303 conflicting demands, 125 coniferous forest, 1762 connectance, 1648, 1655, 1665, 1669, 1673 consumer role, 1884 continuous culture, 408 convergence, 995 cooperative breeding, 1176 cooperative hunting, 1176 copepods, 1393 coral reef, 370, 635, 1367 Cordia nodosa, 801 correspondence analysis, 1479 cost of fruit production, 962 cost of reproduction, 1454 Costa Rica, 207, 250, 764, 832, 1076, 1552 crab spider, 1970 Crematogaster, 801 crop size, 233 Cucurbitaceae, 1090, 1103 cultural evolution, 104 Curculionidae, 427 cyanobacteria, 1894 cyclic regeneration, 516 Cyclocephala, 832 Cynomys ludovicianus, 1599 cyprinids, 1239 Cyprinodon macularius, 1871 cytometry, 558

dabbling ducks, 1439 Dalechampia, 1746 damselfish, 370 Danaus plexippus, 458 Danthonia sericea, 1588 Daphnia, 1826 Daphnia oscillations, 1806 data artifacts, 543, 544 data distortion, 284 data plotting, 1618 Daucus carota, 220 dead wood, 714 decay rate, 1689

decline disease, 723 decomposition, 59, 1009, 1525 defensive behavior, 1506 defoliation, 267, 1599 demographic cost of reproduction, 1741 demography, 350, 796, 1588 denitrification, 1517 density cycles, 1466, 1474 density dependence, 85, 868, 1017, 1294 density inflation, 1899 density-dependent effects, 947 density-dependent selection, 220 density-independent control, 1214 depositional banks, 1341 depth, 1393 desert, 1731 desert ecosystem, 24 desert shrubs, 303 deterrent, 886 detrended correspondence analysis, 1703 detrital chemistry, 261 detritivores, 261 detritus, 1525 development, 1983 deviation profiles, 1260 Diabrotica, 1090, 1103 Diadema antillarum, 1367 diapause, 823 diatoms, 408, 664, 1894 dicrotophos, 590 Dictyostelium, 193 Didinium nasutum, 135 dieback, 723 Dieffenbachia, 832 diet, 1993 diet choice, 1943 diet variation, 1839 diffuse radiation, 1634 digestion, 1153 digestion-resistant algae, 1806 dioecious, 741 dioecy, 962, 2031 Diplocardia, 476 Dipodomys, 1466, 1474 Dipodomys spectabilis, 1943 discriminant function, 96 discriminant function analysis, 1275 dispersal, 468, 1055, 1290, 1466, 1474 dispersal distance, 468 dispersion, 537 dispersion patterns, 362 distance matrices, 537 Distichlis spicata, 703 distribution boundaries, 330 distribution patterns, 1367 distributional profiles, 1899 disturbance, 157, 312, 382, 516, 624, 751, 764, 928, 1044, 1703 disturbance frequency, 1609 disturbance regime, 1677 disturbance size, 1609 divergence, 995 DNA, 561 Dolichonyx oryzivorus, 96 dominance, 1188 drought stress, 484

E

E. S. George Reserve, 1545 earthworms, 476

ecological saturation, 1176 ecosystems, 508, 1118, 1326 edaphic conditions, 703 effects of herbivory, 1628 egg predation, 1970 egg-production rate, 362 elasticity, 1588 Eleocharis, 1044 elfin forest, 764 Emberizinae, 1195 emergent macrophytes, 1294 emigration, 1871 encounter rates, 1195 enemy-free space, 1506 energetics, 1306, 1923 energy allocation, 1219 energy budget, 1578 energy constraints, 330 England, 278 environmental carryover, 1716 environmental constraints. 1176 environmental heterogeneity, 947 environmental impacts, 508 environmental variability, 382, 408 epibenthic predators, 1795 epilithon, 1383 epiphtye, 1138 equilibrium theory, 916 equivalence, 937 Eriophorum, 693 Erioscelis, 832 erosional banks, 1341 estuaries, 1775 etiolation, 1775 Euclidean distance, 1703 euglossine bees, 1746 Euphdryas editha, 1486 Euphorbiaceae, 1746 European Starling, 590 Euura lasiolepis, 2012, 2021 evolution, 1746 evolution of life histories, 1855 experiments, 508, 1787 exploitative competition, 1933 extinction, 104 extinction coefficient, 1762 extrafloral nectaries, 278

E

facilitation, 446 factor interaction, 1983 Fagus grandifolia, 786 feeding, 146 feeding activities, 177 feeding behavior, 1118, 1506 feeding constraints, 635 feeding ecology, 1439 feeding experience, 1839 feeding ontogeny, 635 feeding specialists, 912 fence effects, 1871 fertilization, 870 fertilizer, 984 fertilizing, 723 Ficedula hypoleuca, 1918 Ficus, 1302 Ficus pertusa, 207, 1298 field experiments, 664, 868, 1983, 1993 fig wasps, 207, 1298 figs, 207, 1298, 1302

finches, 1195 fire, 46, 476, 1689 fish behavior, 1871 fish predation, 1251 fishes, 382, 1239, 1341 fitness, 184, 602, 1970 fixed-interval experiments, 1933 floating mat, 1025 floodplain, 1768 floodplain-river interaction, 679 floral longevity, 446 floral resins, 1746 Florida, 157 flower nectar variance, 1434 flowering, 46 flowering propensity, 962 flume nets, 1341 foliage damage, 434 foliage density, 74 foliage height diversity, 74 food, 1983 food abundance, 1188 food chain, 340, 418 food choice, 261 food limitation, 350, 362, 1983 food quality, 267 food supplementation, 350, 362 food web theory, 1648, 1655, 1665, 1669, 1673 food webs, 418 forage availability, 1166 forage intake rate, 1166 foraging, 118, 602, 1064, 1166, 1188, 1993 foraging behavior, 125, 1195, 1933 foraging in Bananaquits, 1434 foraging microhabitat, 569 foraging rate, 1352 forest birds, 74 forest disturbance, 778 forest dynamics, 751 forest edge, 544 forest floor, 714 forest fragments, 544 forest gap dynamics, 778 forest herb, 215 forest soil, 193 forests, 1017, 1118 fragmentation, 1219 freshwater, 418, 1393 frugivory, 320, 1545, 1768 fruit, 320, 1076 fruit and seed dispersal, 1552 fruit characteristics, 233 fruit display, 1545 fruit production, 207 fruit ripening, 1545 fruit set, 832 fruit-eating birds, 1076 fruit-to-flower ratio, 200 fruiting phenology, 233 Fucus, 655 functional morphology, 635 functional response, 1166, 1418 Fundulus, 1795 Fundulus diaphanus, 1341 Fundulus heteroclitus, 1341 fungal endophytes, 2, 10, 17

G

gall, 845 gamma distribution, 1200 gamma radiation, 796 gap dynamics, 1677 gap light index, 1634 gap turnover, 1609 gape limitation, 635 gaps, 320, 764, 1960 gas exchange, 1331 gas flux, 1318 gaseous emissions, 1326 gastropod shells, 1233 gene probes, 561 generalist predators, 544 genetic effects, 1716 genetic transformation, 17 genetic variation, 220 genetics, 1290 genets, 736 geographic variation, 278 geometric analysis, 284 geometric series, 1974 geostatistics, 1517 germination date, 947 Gini coefficient, 1721 gorgonian, 157 graphical model, 1233 grass blue grama, 1599 grasses, 10 grasses root growth, 870 grassland, 947, 1599, 1609 grazer-algae relationships, 1806 grazing, 1609, 1894 grazing history, 1599 Great Basin, Nevada, 303 greenfall, 1118 ground nests, 544 group living, 1497 growth, 146, 157, 184, 220, 261, 664, 814 growth rate, 362, 1064, 1219, 1352 Gulf of California, 400, 1233 Gulf of Mexico, 157

H

habitat, 614, 1439 habitat diversity, 916 habitat gradient, 1899 habitat islands, 74, 544 habitat modification, 974 habitat partitioning, 1239 habitat patch, 468 habitat preference, 1479 habitat quality, 1486 habitat saturation, 1466 habitat selection, 125, 1233 habitat shifts, 1352 habitat suitability, 1787 habitat use, 1239 habitat variability, 728 habitat-niche, 1899 Haliaeetus leucocephalus, 1188 Halichoeres, 635 Harris' Hawk, 1176 Hawai'i, 723 head size, 1153 heathland, 1260 hemiepiphytes, 764 herbivore impact, 2021 herbivore movement, 434 herbivore movement patterns, 1103 herbivore-plant interaction, 1090, 1103 herbivores, 177, 278, 845, 2021

herbivorous fish, 1367 herbivory, 10, 250, 655, 896, 908, 1118, 1166, 1367, 2012 herbs, 796 heritability, 845 hermaphroditic, 1716 hermit crab, 646, 1064, 1233 heterogeneity, 215 heteromyid, 1943 heterotrophic, 1383 High Arctic, 484 higher order interactions, 1401 Hilaria rigida, 1731 Hirundinidae, 602 Hirundo pyrrhonota, 602 history, 646 Holocene, 516, 1032 Holocene climate, 66 home range, 393 home-range overlap, 362 home-range size, 362 homeostasis, 146 Homoptera, 1302 host alteration, 1214 host detection, 468 host finding, 1506 host plant patch size, 1090, 1103 host plant quality, 1103 host range, 886 host specificity, 823 host-plant patch, 468 hummingbird, 1933 Hutchinsonian series, 1974 Hydractinia, 646 hydrochory, 1055 hydrodynamics, 1251 hydroid, 646 hydrological disturbance, 66 hydrology, 1055 hydrosere, 928 Hyla andersonii, 1401 hypothesis testing, 543, 544

internal feeders, 278

ichneumon, 1970 Illinois, 320 image analysis, 1286 independent mortality, 736 India, 1768 Indiana Dunes, 928 indirect effects, 1795 indiscriminant function loadings, 1275 individual variability, 233 induced defenses, 267, 434, 655 information center, 602 infrared spectroscopy, 1326 ingestion, 1153 insect gall, 2021 insect herbivory, 1294 insect host range, 893, 896, 898, 902, 905, 906, 908, 910, 912 insect population dynamics, 1090, 1103 insect thermoregulation, 458 insect-plant interactions, 823, 905 insecticide, 590 insectivore, 569 insects, 1118, 1401 interaction strength, 1648, 1655, 1673 interference, 1826 intermediate disturbance hypothesis, 1161

interphyletic competition, 1401 interspecific competition, 569, 646, 664, 1439, 1974 interspecific interactions, 193, 508 intertidal, 655, 1787, 1795 intertidal zone, 1839 intrapopulation variability, 1839 intraspecific competition, 646, 1017 introductions, 974 invasion history, 1410 invasions, 974 inverse texture effect, 40 invertebrate drift, 1251 irradiance, 1775 irrigation, 476 island biogeography, 544, 916, 1410 isopod, 1064 Iwao, 497

jack pine, 1017 Jamaica, 537 Jolly-Seber model, 590 Junco phaeonotus, 118 juvenile, 157

K

Kalmia, 728 kettle-hole bogs, 1032 keystone predator, 1624 keystone species, 1076 kriging, 1517 Kuparuk River, 1383

1-Canavanine, 427 La Selva Biological Station, 1552 labels, 796 Labridae, 635 Lake Tahoe, 664 Laridae, 1454 Larrea tridentata, 809 Larus glaucescens, 1454 larvae, 370, 1983 larval predation by barnacles, 624 lasers, 1318 late-glacial, 1032 latent infection, 2 latitudinal variation, 220 leaf angle, 1578 leaf area index, 1762 leaf curling, 1578 leaf display, 786 leaf herbivory, 1552 leaf heterogeneity, 434 leaf nutrient content, 250 leaf palatability, 250 leaf skeletonization, 543, 544 leaf survival, 1294 leaf temperature, 1578 leaf toughness, 1153 leafminers, 1118, 1506 Leiostomus xanthurus, 1251 length measurement, 1286 Lepidoptera, 278, 434, 1153 lepidopteran mandibles, 1153 Lepomis, 614, 1352 Leptinotarsa, 823 levels of organization, 1618 lichens, 17

lidar, 1318 life histories, 484, 1219, 1588 life history constraints, 458 life history evolution, 220 life history tactics, 146 life history theory, 1454 life table, 2012 light, 664, 1634, 1775 light gaps, 1552 lignocellulose, 1525 limitation, 446 limiting factors, 581 Lincoln-Petersen estimator, 1952 linear models, 1974 linear regression, 1974 link-species scaling law, 1648, 1655, 1673 lipid energetics, 458 litter, 543, 544, 947, 1044 litterfall, 59, 1118 littermates, 1290 littoral, 614 Littorina, 655 local abundance, 468 local extinction, 1787 logit model, 823 long-term study, 916 losses, 664 lunar cycle, 370 Lycopodium flabelliforme, 215 Lymantria dispar, 267

М

macroecology, 1923 macrophytes, 1775 Malacosoma americanum, 2004 male-female differences, 741 mammals, 393, 1620 mangrove, 1064 Mannaea arcus, 1383 map, 537 marine meiofauna, 1251 mark-recapture, 590, 1952 Markov chain, 1260 marsh, 1025 mass balance, 679 mass budgets, 146 mass mortality, 1367 Massachusetts, 796 material flow, 340 mating system, 85 maturation, 1290 measurement, 1974 Mediterranean islands, 1899 Mediterranean scrublands, 233 megafauna, 1768 Melampus bidentatus, 261 meme, 104 mesocosms, 1401 metabolic rate, 330 metabolic water, 1943 metamorphosis, 184 methane oxidation, 1631 Mexico, 200, 458, 1128 Michigan, 614, 1352, 2031 microbial ecology, 193, 558 microbial loop, 1525 microchiroptera, 1960 microclimate, 1486 microcommunities, 1383 microcosms, 1410

microhabitat, 382 micrometeorology, 1331 Micropterus, 1352 microsites, 1055 Microtus pennsylvanicus, 1290 migration, 287 minnows, 1239 Miocene, 646 Misumena, 1970 mixed forest, 1260 modules, 1219 Mohave Desert, 809 mollusc crushing, 635 molt, 1918 monarch butterfly migration, 458 monocarp, 220 monophagy, 886 monoterpenoids, 1631 montane, 723 montane rain forests, 764 Monte Carlo simulations, 1439 Morisita's index, 497 morphological plasticity, 786 morphology, 1974 mortality, 157, 723 mountain hemlock, 714 multiple pathways, 1703 multiple regression, 1479 multivariate analysis, 382, 1479 mutualism, 2, 10, 17, 200, 207, 801, 1128, 1138, 1298, 1302

NT

natal philopatry, 1290 natural enemies, 886 natural herbivory, 1628 natural selection, 1537 Nebraska, 602 nectar, 446, 728, 1306, 1716 nectarivorous birds, 1434 neighborhood effects, 1721 Nematostella, 1795 neotropics, 287 Nepal, 1768 nest distribution, 809 nest predation, 74, 544 nest-site selection, 96 net ecosystem production, 714 New Jersey, 1401 niche availability, 1620 niche partitioning, 1239 nitrapyrin, 1631 nitrification, 1517, 1631 nitrogen, 59, 261, 693, 714, 995 nitrogen accumulation, 1599 nitrogen budgets, 1884 nitrogen excretion, 1884 nitrogen fixation, 1894 nitrogen isotope ratio, 340 nitrogen limitation, 1009 nitrogen mineralization, 1517 nonoperational constructs, 1648, 1655, 1669, 1673 nonpolar extracts, 250 nonsubstitutable resource, 1418 Norops humilis, 350, 362 North Dakota, 1439 northern hardwood forests, 786 northern range limits, 330 Nuphar variegatum, 1294 nurse plant, 1731 autrient accumulation, 1599

nutrient allocation, 962 nutrient cycling, 24, 693, 1118, 1326, 1517 nutrient enrichment, 984 nutrients, 870, 1383 nutritional indices, 814 Nyssa aquatica, 1055

0

Octocorallia, 157 Odonata, 857 Okefenokee Swamp, 1525 old field, 497, 984, 1537, 1677 old field resources, 995 old-field succession, 1517 old-growth stands, 1689 ombrotrophic peatland, 516 omnivory, 418 ontogeny, 118, 1352 operant behavior, 1933 operative temperature, 2004 optimal foraging, 1943 optimal foraging theory, 1970 ordination, 1703 Oregon, 974 organic deposits, 1025 organic matter, 714 organophosphate, 590 Orinoco River, 679 Orthocladius rivolorum, 1383 Osteichthyes, 614 Osyris, 233 otolith aging, 370 ovaries, 1497 overgrowth, 1894 overwinter survival, 581 overwintering behavior, 458 oviposition behavior, 2012 Ozark Mountains, 1894 Ozarks, 1239

P

Pacific Northwest, 1689 Pagurus, 646 Palaemonetes, 1795 palatability, 261 paleoclimate, 1032 paleoecology, 928, 1032 paleohydrology, 1032 paleolimnology, 66 palynology, 66 Panama, 1839 Papilio glaucus, 814 PAR, 1634 parabiosis, 1138 Parabuteo unicinctus, 1176 Paramecium, 135 parameter estimation, 1200 Parantechinus, 569 parasitic angiosperms, 17 parasitic red algae, 17 parasitoid oviposition, 1506 parasitoids, 278, 1302, 1506 parent-offspring conflict, 118 parental investment, 1918 Parus atricapillus, 581 Passerina cyanea, 104 passerine energetics, 330 patch, 468 patch choice, 1970

patch dynamics, 624, 1076, 1609 patch selection, 125 patchiness, 947 path analysis, 1128 pathogen, 2 pattern, 1017 peat, 703 peatland, 1025, 1032 Pemphigus, 1214 permanent plots, 1703 perturbation experiments, 1806 perturbations, 508 Peru, 801, 1138 Phaethornis, 1933 Phellinus weirii, 714 phenetics, 1960 phenolic compounds, 261 phenolic glycosides, 814 phenolics, 267 phenology, 446, 1486, 1545, 1552 philopatry, 96, 1466, 1474 Phippsia, 484 phosphatase, 693 phosphate, 664 phosphorus, 24, 59 photoadaptation, 1775 photoelectronic image analysis, 1286 photosynthesis, 1775 photosynthetically active radiation, 1634, 1731 Physella gyrina, 146 physiological demands, 330 physiological ecology, 330, 458 physiological integration, 215 phytoplankton, 408, 664 phytotelmata, 1648, 1655, 1673 Picea engelmannii, 312 Pied Flycatcher, 1918 Pieris rapae, 468 pigments, 1775 Pinus jeffreyi, 303 Pinus ponderosa, 303 Piper arieianum, 1552 pirating, 1188 Pisaster ochraceous, 1624 planetary boundary layer, 1318 plankton, 370, 418 plant antiherbivore defense, 1166 plant chemistry, 896, 908 plant community, 1260 plant competition, 703 plant defenses, 655, 886 plant diversity, 1103 plant fitness, 2021 plant genetics, 1005 plant genotype, 845 plant life histories, 984 plant macrofossils, 928 plant morphology, 1005 plant productivity, 1005 plant secondary chemistry, 250 plant strategies, 284, 1618 plant trichomes, 1506 plant-animal interactions, 200, 801, 1064 plant-herbivore interactions, 267, 427, 655, 1367 plant-herbivore relations, 845 plants, 1716 plasmodesmata, 17 plasticity, 870 Pogonomyrmex, 1993 Pogonomyrmex rugosus, 809 point patterns, 537

Polistes bellicosus, 1497 pollen, 928, 1032, 1716 pollination, 207, 446, 728, 1298, 1306, 1746 pollination biology, 1128 pollinator effectiveness, 832 pollinator importance, 832 pollinator limitation, 200, 207, 1128 polygyny threshold model, 1176 polyphagy, 886 polyphenolic compounds, 655 Polysphondylium, 193 ponderosa pine, 1631 ponds, 928, 1401 population, 104 population biology, 350, 362 population cycles, 1290 population density cycles, 1466 population dynamics, 184, 408, 581, 1214, 1219, 1290, 1871 population estimation, 1952 population regulation, 85, 1871 population structure, 646 Populus grandidentata, 2031 Populus tremuloides, 814 Postelsia, 1787 potato beetle, 823 Potentilla anserina, 736 power analysis, 624 prairie dog, 1599 prairies, 177 preadaptation, 1138 precipitation effect, 40 predation, 125, 135, 193, 635, 857, 886, 902, 910, 1064, 1352, 1497, 1795 predation pressure, 1341 predation risk, 614 predator exclusion, 1367 predator size, 135 predator-mediated competition, 1624 predator-prey interactions, 1839, 1865 predator-prey ratios, 1648, 1655, 1673 predators, 177, 350 prev size, 135, 569 primary production, 40, 1009 primary productivity, 1161 primary succession, 916 priority effects, 1410 production controls, 40 productivity, 693, 1064 productivity of aquatic ecosystems, 1032 productivity-diversity relationships, 1418 profitability, 1195 protease, 693 protection, 278 Protozoa, 135 Prunella vulgaris, 1537 Pseudomyrmex, 801 pseudoscorpions, 287 Pseudotsuga menziesii, 1689 Puccinellia, 484 Pyrrhalta nymphaeae, 1294

Q quantum yield, 1578 Queensland, Australia, 1960 Quercus rubra, 267

radial growth patterns, 778 radionuclides, 796

rain forest, 723, 1960 ramet, 215, 736 random mortality, 1017 random sampling, 1628 recovery process, 1260 recruitment, 400, 624, 646, 1055, 1064 Red-winged Blackbirds, 85 refuge, 614 regeneration, 764 regression, 1266, 1566 relative body mass, 362 remote field, 340 removal experiments, 85 renesting, 1918 repeated measures ANOVA, 823 reproduction, 146, 184, 602 reproductive allocation, 484 reproductive biology, 200, 1128 reproductive competition, 1497 reproductive costs, 741 reproductive effort, 962, 1454, 1741 reproductive output, 1552 reproductive success, 96 reproductive timing, 220 resilience, 1703 resistance, 845, 1703 resource allocation, 146, 1923, 2031 resource limitation, 200, 207 resource localization, 1176 resource partitioning, 1195, 1439 resource quality, 1806 resource use, 1266 resource variability, 728 resources, 215, 408, 664, 1418 respiration, 146 return rates, 96 Rhinoceros unicornis, 1768 rhizomes, 1025 Rhizophora mangle, 1064 Rhododendron maximum, 1578 Rhus typhina, 741 risk, 125 risk spreading, 736 risk tradeoff, 1352 risk-sensitive foraging uncertainty, 1434 river primary production, 679 riverine marshes, 1044 rodents, 1161 role of herbivores, 1118 rookery, 340 root and rhizome distribution, 1005 root fauna, 1064 root hemiparasites, 233 root length, 1286 roots, 59, 1286 rotifers, 1393, 1826 Rubus chamaemorus, 962 ruderal, 484

2

safe site, 947 salamander, 184 Salicaceae, 814 *Salix*, 845 *Salix lasiolepis*, 2012, 2021 salt marsh, 261, 1251, 1795 salt marsh ecology, 703 salt marsh plants, 1005 sample size, 1275 sampling, 497 sampling data, 1974 sampling theory, 1393 sand, 157 Santalaceae, 233 sapling growth, 778 Saturniidae, 1153 sawfly, 845, 2012 scale, 1326, 1393 scaling, 40 Sceloporus merriami, 167 Scirpus, 1044 sea urchin, 1367 seabird, 340 seagrass, 974, 1775 search times, 177 seasonal succession, 664 seasonal variability, 1439 seasonality in tropic rivers, 679 seaweeds, 655 seed bank, 497 seed dispersal, 233, 320, 1076, 1138, 1545, 1768 seed handling time, 1195 seed predation, 1552 seed predators, 1302 seed shadow, 320 seed size, 1537 seedling, 947 seedling establishment, 1537 seedlings, 796 seeds, 796, 1055, 1716 selective abortion, 207 self-thinning, 1017 semi-variograms, 1517 senescence, 1454 Setaria faberii, 937 settlement, 370, 400 settlement cues, 400 sex differences, 2031 sex ratios, 741, 962 sexual dimorphism, 962 shade tolerance, 786 shading, 1775 shell choice, 1233 shrubs, 741, 1076 shrubsteppe, 1566 similarity index, 995 simulated herbivory, 1628 simulation, 1266 simulation model, 468, 1525, 1609 site fidelity, 96 size hierarchies, 1721 size relationships, 177 size-dependent demography, 1219 sludge, 984 Sminthopsis, 569 snails, 146 social behavior, 602 social foraging, 118 social organization, 1624 sociality, 1497 soil, 497 soil climate, 476 soil fauna, 287 soil microbiology, 561 soil moisture, 303, 1983 soil nitrogen, 1517 soil organic matter, 476 soil seed bank, 764

soil temperature, 46

soil texture effect, 40 soil water, 693 Solanaceae, 1506 Solanum, 823 solar radiation, 2004 song dialects, 104 Sonoran Desert, 809 Sorex, 569 South Asia, 1768 space use, 393 Sparganium, 1044 sparrows, 1195 Spartina, 261 Spartina alterniflora, 703, 1005 Spartina patens, 703 spatial, 537 spatial arrangement, 468 spatial distribution, 870 spatial heterogeneity, 1393 spatial pattern, 40, 157, 497, 1566, 1721 spatial scale, 1648, 1655, 1673 spatial statistics, 1017 spatial variability, 1517 spatial variation, 1588 spatially explicit growth model, 1721 spawning, 370 specialist herbivore, 1090, 1103 specialization, 446, 886 speciation, 1620 species coexistence, 312 species diversity, 1161, 1418, 1923 species numbers, 74 species richness, 984 species-area, 74 species-area relations, 916 species-habitat, 74 Sphagnum, 1032 Sphagnum-Picea bog, 516 Sphingidae, 1153 stability, 418, 1275, 1648, 1655, 1673, 1703 stability in food webs, 1665 Stagnicola elodes, 146 stand development, 312 standing crop, 1044 starfish, 1624 statistical distributions, 1923 statistical independence, 393 stem density, 714 stochastic differential equations, 1200 stochastic environments, 728 stochastic population model, 1200 strategies, 1044 stream habitat, 382 streamflow regulation, 382 streams, 1239, 1884, 1894 stress, 1044, 1566, 1716 stress tolerator, 484 stunting, 1871 Sturnus vulgaris, 590 subalpine, 714 subalpine forests, 312 subarctic, 516 substitutable resource, 1418 substrate suitability, 1294 succession, 312, 751, 928, 984, 1410, 1517, 1677, 1689, 1703, sumac, 741 summer annual, 984 supplemental feeding, 581

survival, 96, 104, 184, 220, 590, 814, 1474, 1983

survival rates, 581 survivorship, 736, 741 swamp forest, 1055 symbiosis, 2, 10, 17 synchrony, 1545

T

tabular roots, 532 Tachigalia versicolor, 532 tadpole, 857 tallgrass prairie, 46, 59, 476 tannins, 267 Taxodium distichum, 1055 taxonomic assemblages, 1620 taxonomic diversity, 1620 temperature, 870, 1731 temporal variability, 40 temporal variation, 1588 temporary ponds, 184, 857 tension members, 532 testosterone, 85 tethering, 1341 Thais melones, 1839 thermal biology, 167 thermal constraint, 167 thermal ecology, 1486 thermoregulation, 167, 1486, 2004 thermotropic leaf movements, 1578 thinning, 723 three-trophic-level interactions, 1506 tidal marshes, 1341 tiger beetles, 1983 Tildenia, 1506 Tilman's model, 1161 timber harvest, 543, 544 time budgets, 118 timing of reproduction, 1855 topographic equilibrium, 516 topography, 1486 toughness, 250 trade-offs, 125, 1618 trajectory, 995 Tramea carolina, 857 transition matrices, 1588 translocation, 215 transplant, 157 trapline, 1933 tree lean, 532 tree senescence, 723 treefall gaps, 751, 1076 trees, 537 Trewia nudiflora, 1768 triangular model, 284, 1618 Tribolium, 1200 trichomes, 250 Triplaris americana, 801 trophic species, 1648, 1655, 1673 tropical arthropod, 350 tropical biology, 200 tropical deciduous forest, 250 tropical forests, 764 tropical Mexico, 1741 tropical rain forest, 1138, 1552 tropical river phytoplankton, 679

0

tropics, 1839 trunk growth, 741 Trychosis, 1970 tundra, 693 turbidity, 1775 Typha, 1025, 1044

U

underground carbohydrate reserves, 1005 understory birds, 1076 understory herbs, 1741 understory trees, 778 ungulates, 177, 1768 urease, 427

V

variable distributions, 400
variance, 1393
variance in food resources, 1434
vascular plant evolution, 17
vascular plants, 916
vegetation dynamics, 928, 1703
vegetative growth, 2031
Venezuela, 679
Veromessor, 1993
Vespidae, 1497
video analysis, 558
vigilance, 118
volatiles, 1631

W

wasps, 1497 water, 1983 water balance, 1943 water lilies, 1294 water movement, 215 water relations, 303, 809, 1731 water stress, 2012 water use efficiency, 40 waterfowl habitat, 1025 weathering, 24 wetland ecology, 1525 wetland evolution, 1032 wetlands, 928, 1025, 1044 willow, 845 wind-induced stress, 532 winter annual, 984 winter ranges, 330 Wisconsin, 1032 woodland, 1537 woodland ecology, 1566

X

xylem pressure potential, 303

Y

Yellow-eyed Junco, 118

Z

zooplankton, 857, 868, 1393, 1826 zooplankton competition, 1806 Zostera japonica, 974

BOOK REVIEW INDEX

A

Acid rain 1986: a handbook for states and provinces: research-information-policy (book review), 881 adaptations to cold, 1313

Adaptive management of renewable resources (book review), 878

Addicott, J. F., review, 296

African savannas, 882

Agricultural insect pests of temperate regions and their control (book review), 553

agriculture and environmental degradation, 1309

agroecology, 293, 1309 Ahmad, S., reviewed, 301

Alaskan forest ecosystems, 297 Allelopathy (book review), 292

allelochemicals, 301 American savannas, 882

Analyses in behavioral ecology: a manual for lab and field (book review), 2036

animal physiological ecology, 1642

ant ecology, 877

arthropod evolution, 551

atmospheric pollution, 881 Augspurger, C. K, review, 552

Australian rangelands, 1311 Australian savannas, 882

behavioral ecology (lab manual), 2036 Bennett, A. F., ed., reviewed, 1642 Bernard-Dagan, C., ed., reviewed, 1640 bioassays (allelopathy), 292 biochemical interactions (insect-plant), 301 Biodiversity (book review), 1639 Biodiversity: the videotape (book review), 1639 biogeography, 299 biogeography (plants), 294 Biogéographie évolutive (book review), 299 biological control of insects, 553 biological diversity, 1639 Blondel, J., reviewed, 299 boreal ecosystems, 297 Brattsten, L. B., reviewed, 301 British landscapes, 1641 Brown, L., reviewed, 2036 Burdon, J. J., reviewed, 552 Burggren, W. W., ed., reviewed, 1642 Burr, R. L., review, 548

Canada, postglacial vegetation of, 2037 Cappuccino, N., review, 879 Carey, J. R., reviewed, 553 Carroll, R. L., reviewed, 880 Caughley, G., ed., reviewed, 1311 Central American butterflies, 875 Chaloner, W. G., ed., reviewed, 551 Chapin, F. S., III, ed., reviewed, 297 chemical inhibition of plants, 292 chemical interactions among plants, 292 Clark, J. S., review, 2038 Clark, W. C., ed., reviewed, 554 Cleveland, C. J., reviewed, 550 Climate and plant distribution (book review), 294 climate change, long-term, 2037, 2038 coevolution, 2035

cold, life in, 1313 community analysis, 298 Congdon, J. D., review, 1642 coniferous forests (taiga), 297 Conservation biology: the science of scarcity and diversity (book review), 876 conservation of biological diversity, 1639 Costa Rican butterflies, 875

Damman, H., review, 879 data analysis (community ecology), 298 De la Maza Ramírez, R., reviewed, 875 decision theory in natural resource use, 878 defenses of plants, 1640 Delcourt, H. R., reviewed, 2038 Delcourt, P. A., reviewed, 2038 development and environment, 1308 development, sustainable global, 554 DeVries, P. J., reviewed, 875 Digby, P. G. N., reviewed, 298 Diseases and plant population biology (book review), 552 diversity and conservation, 876 diversity, maintenance of, 1639 Douglas, A. E., reviewed, 296 Dover, M. J., reviewed, 1309 Downhower, J. F., reviewed, 2036 Dunwiddie, P. W., review, 1641 Dyrness, C. T., ed., reviewed, 297

E

ecological modelling, 1310

Ecological relationships of plants and animals (book review), Ecological studies in tropical fish communities (book review), 300 ecology (textbook), 879, 2035 Ecology-potentials and limitations (book review), 2034 Ecology and management of the world's savannas (book review), 882 Ecology of forest insects (book review), 549 ecology of soil microbes (text), 1312 economics and ecology, 550 ecosystem studies, 297 ecosystem theory, 548 Ehrlich, P. R., reviewed, 879 Elliott-Fisk, D. L., review, 297 Ellis, J. E., review, 1308 Energy and resource quality: the ecology of the economic process (book review), 550 entomology, 553, 877 entomology (Polish forests), 549 environmental degradation, 1308 environmental degradation and agriculture, 1309 environmental planning, 550 eusociality and ant ecology, 877 Evolution and environment in the late Silurian and early Devonian (book review), 551 evolution of plant-insect interactions, 295 evolutionary biogeography, 299 experiments (behavioral ecology), 2036 extinct vertebrates, ecology of, 880

Feder, M. E., ed., reviewed, 1642 Fenchel, T., reviewed, 2034

Fetcher, N., review, 2036
fish ecology (tropics), 300
Flanagan, P. W., ed., reviewed, 297
Forest ecosystems in the Alaskan taiga: a synthesis of structure and function (book review), 297
forest insects (Poland), 549
forests, tropical (textbook), 2036
Francis, C. A., ed., reviewed, 293
Franks, N. R., reviewed, 877
Franz, E. H., review, 554
fruit fly control, 553

G

Gallucci, V. F., review, 548
genetic variability and conservation, 876
Gibson, D. J., review, 298
global environmental change, 554
global environmental conservation, 1308
global vegetation patterns, 294
Grimm, E. C., review, 2037
Gross, L. J., review, 2034
Growth and development: ecosystem phenomenology (book review), 548

H

Habitat fragmentation and conservation, 876 Hall, C. A. S., reviewed, 550 Harrison, S., review, 876 harsh conditions, life in, 1313 Hastings, A., review, 1310 herbivores on sheep rangelands, 1311 herbivores, grassland, 1311 herbivory, 1640, 2035 Hill, D. S., reviewed, 553 historical ecology, 1641 Holocene vegetation (North America), 2038 Howe, H. F., reviewed, 2035 Huey, R. B., ed., reviewed, 1642 hymenopteran ecology, 877

1

inhibitory chemical interactions (in plants), 292 Inouye, D. W., review, 1313 insect ecology, 549 Insects and the plant surface (book review), 295 integrated pest management, 553 intercropping, 293

J

Jeffrey, D. W., reviewed, 874 Jenik, J., reviewed, 2036 Juniper, B., ed., reviewed, 295

K

Kangaroos: their ecology and management in the sheep rangelands of Australia (book review), 1311 Kaufmann, R., reviewed, 550 Keeley, J. E., review, 292, 293 Kempton, R. A., reviewed, 298 King, J. R., review, 1642 Kingsolver, J., review, 1642

L

lab manual (behavioral ecology), 2036 landscape ecology, 1641 Lawson, J. D., ed., reviewed, 551 Lepidoptera, Central American, 875 Levieux, J., ed., reviewed, 1640 Life in the cold: an introduction to winter ecology (book review), 1313
Lindroth, R. L., review, 301
Long-term forest dynamics of the temperate zone: a case study of late-Quaternary forests in eastern North America (book review), 2038
Longman, K. A., reviewed, 2036
low-input agriculture, 1309
Lowe-McConnell, R. H., reviewed, 300

M

macroevolution, reconstruction of, 552 management of renewable resources, 878 management of savannas, 882 management of tropical forests, 2036 Mangel, M., reviewed, 553 Marchand, P. J., reviewed, 1313 marine ecology, 2034 marine fish, tropical, 300 marine to land transition in evolution, 551 Mariposas mexicanas (book review), 875 mathematical modelling in ecology, 1310 Mattson, W. J., ed., reviewed, 1640 McCullough, D. R., review, 1311 Mechanisms of woody plant defenses against insects: search for pattern (book review), 1640 Mexican butterflies, 875 microbial symbiosis, 296 mineral ions in soil, 874 modelling in ecology, 1310 modelling, ecological, 548 models for resource management, 878 Molecular aspects of insect-plant associations (book review), 301 molecular sequence data, 552 Molecules and morphology in evolution: conflict or compromise? (book review), 552 Mott, J. J., reviewed, 882 Multiple cropping systems (book review), 293 Multivariate analysis of ecological communities (book review), 298 Munn, R. E., ed., reviewed, 554 mutualism, 296 mutualisms, nonsymbiotic, 2035

N

natural resource management, 878 network theory and ecosystems, 548 New directions in ecological physiology (book review), 1642 Nichols-Orians, C., review, 877 North America, vegetation change in, 2038 Norton, S. A., review, 881

0

Ouellet, H., review, 299 Our common future (book review), 1308

P

paleoecology, 294
paleoecology (Canada), 2037
paleoecology (eastern North America), 2038
paleogeography and evolution, 551
paleontology and ecology, 880
palynology (Canada), 2037
palynology (North America), 2038
Pastor, J., review, 874
pathogens and plant populations, 552
Patterson, C., ed., reviewed, 552

Pest control: operations and systems in fruit fly management (book review), 553 Peter, F., ed., reviewed, 1639 philosophy of ecology, 2034 phylogenetics, molecular methods in, 552 physiological ecology, 1642 physiological mechanisms of plant-animal interactions, 301 plant chemical interactions, 292 plant distribution and climate, 294 plant pathology, 552 plant population biology and diseases, 552 plant surface traits and insects, 295 Plant, R. E., reviewed, 553 plant-animal interactions, 2035 plant-insect interactions, 295, 301, 1640 plant-soil relationships, 874 Pleistocene vegetation (Canada), 2037 policy, acid rain, 881 policy, economic and environmental, 554 policy, global environmental, 1308 pollen analysis, 2038 pollution (acid rain), 881 population biology and conservation, 876 population dynamics of trees, 2038 Postglacial vegetation of Canada (book review), 2037 Pough, F. H., review, 880 Power, A. G., review, 1309 Putnam, A. R., ed., reviewed, 292

0

quantitative analysis, 298 Quantitative ecological theory: an introduction to basic models (book review), 1310

R

Rackham, O., reviewed, 1641 Rausher, M. D., review, 295 resource management, 550, 878 resource management, global, 554 Rice, E. L., reviewed, 292 Richards, B. N., reviewed, 1312 Ritchie, J. C., reviewed, 2037 Robertson, G. P., review, 1312 Rose, M. R., reviewed, 1310 Roughgarden, J., reviewed, 879 Ruess, R. W., review, 882

C

savanna ecosystems, 882 Schlosser, I. J., review, 300 Schultz, J. C., review, 549, 1640 Shapiro, A. M., review, 875 sheep and kangaroos, 1311 Shepherd, N., ed., reviewed, 1311 Short, J., ed., reviewed, 1311 Simberloff, D., review, 552 Smith, D. C., reviewed, 296 social insects, ecology of, 877 soil chemistry (allelopathy), 292 soil microbiology (text), 1312 Soil-plant relationships: an ecological approach (book review), 874 Sork, V., review, 2035 Soulé, M. E., ed., reviewed, 876 Southwood, R., ed., reviewed, 295 statistical ecology, 298

Stiling, P., review, 553 Sudds, J. H., reviewed, 877 sulfur dioxide emissions, 881

sustainable agriculture, 293

sustainable agriculture and development, 1309

sustainable development (global), 1308

Sustainable development of the biosphere (book review), 554

symbiosis, biology of, 296 system analysis, 548

Szujecki, A., reviewed, 549

T

taiga ecosystems (Alaska), 297 Talbot, L. M., reviewed, 1309 Tang, C., ed., reviewed, 292 The Acid Rain Foundation, Inc., reviewed, 881 The behavioral ecology of ants (book review), 877 The biology of symbiosis (book review), 296 The butterflies of Costa Rica and their natural history: Papilionidae, Pieridae, Nymphalidae (book review), 875 The history of the countryside (book review), 1641 The microbiology of terrestrial ecosystems (book review). 1312 The science of allelopathy (book review), 292 The science of ecology (book review), 879 thermodynamics, 548 To feed the earth: agro-ecology for sustainable development (book review), 1309 Tothill, J. C., reviewed, 882 Tracy, C. R., review, 1642 tree migration, 2038 tropical fish ecology, 300 Tropical forest and its environment (book review), 2036

U

Ulanowicz, R. E., reviewed, 548

V

Van Cleve, K., ed., reviewed, 297
Vandermeer, J., review, 293
vascular plant evolution, 551
vegetation change (Canada), 2037
vegetation change (North America), 2038
vertebrate ecology (fish), 300
vertebrate evolution, 551
Vertebrate paleontology and evolution (book review), 880
Viable populations for conservation (book review), 876
Viereck, L. A., ed., reviewed, 297

W

Wali, M. K., review, 550
Walters, C., reviewed, 878
Watt, K. E. F., review, 878
Webb, T., III, review, 294, 551
Westley, L. C., reviewed, 2035
Wetzler, R. E., review, 1639
wildlife policy and conservation, 876
Williams, J. B., review, 1642
Wilson, E. O., ed., reviewed, 1639
winter ecology, 1313
Woodward F. I., reviewed, 294
World Commission on Environment and Development, reviewed, 1308

7.

Zimmerman, M., review, 2036